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ABSTRACT OF THE DISCLOSURE

Wavelength converter device for generating a converted radiation at frequency  $\Omega_g$  through interaction between at least one signal radiation at frequency  $\Omega_g$  and at least one pump radiation at frequency  $\Omega_g$ , with an input for the at least one signal radiation at frequency  $\Omega_g$ ; a pump light source for generating the at least one pump radiation at frequency  $\Omega_g$ , an output for taking out the converted radiation at frequency  $\Omega_g$ , a structure for transmitting the signal radiation, the structure including one optical resonator having a non-linear material, having an optical length of at least  $40 \cdot \eta/2$ , wavelength  $\eta$  being the wavelength of the pump radiation, and resonating at the pump, signal and converted frequencies  $\Omega_p$ ,  $\Omega_s$  and  $\Omega_g$ . The structure has a further optical resonator coupled in series to the optical resonator, the further optical resonator having a non-linear material, having an optical length of at least  $40 \cdot \eta/2$ , wherein  $\eta$  is the wavelength of the pump radiation, and resonating at the pump, signal and converted  $\Omega_p$ ,  $\Omega_s$  and  $\Omega_g$ , wherein by propagating through the structure, the pump and signal radiation generate the converted radiation by non-linear interaction within the optical resonators.